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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/806,686	03/23/2004	Frank Adams	ADAMS 3.0-001	2442
7590 12/15/2005			EXAMINER	
EZRA SUTTON, PA PLAZA 9 900 ROUTE 9 WOODBIDGE, NJ 07095			SICONOLFI, ROBERT	
			ART UNIT	PAPER NUMBER
			3683	

DATE MAILED: 12/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/806,686	Applicant(s) ADAMS, FRANK	
	Examiner Robert A. Siconolfi	Art Unit 3683	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 and 11-30 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-9 and 11-30 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

1. Amendment filed on has been received.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-9, 18, 21-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kato in view of Borsa, Puma and Goodwin.

Kato discloses a brake monitoring system with sensors in brake shoes (see figures 7,8,13) that detect wear and temperature and relay the information to a monitoring unit (see figure 14)

Kato does not disclose separate thermal and wear sensors. Puma teaches a wear sensor (see figure 8 sensor with spacer 50,57) . Goodwin teaches a temperature sensor (see figure 6a and 6b). Goodwin does not specifically show threads but the examiner maintains that it is inherent that they are present since hex head is useless without threads.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use separate temperature and wear sensors as taught by Puma and Goodwin respectively in the system of Kato in order to have a reliable system that is easily maintained. The use of two separate sensors allows for either of them to be

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replaced without the other and it also ensures that when one sensor fails some functionality is retained. Use of specialized sensors also allow for more accurate readings since the device is not require to perform multiple jobs.

Kato, as modified, does not disclose auditory alarms in addition to the visual alarms.

The examiner takes official notice that auditory alarms are well known and it would have been obvious to have auditory alarms in the systems of Kato to further help the driver be appraised of the situation.

Regarding claims 25 and 30, Kato, as modified, does not disclose the wear depth at which the alarm is activated but such is merely a design choice based on service life and rate of wear of the brake shoe.

Kato, as modified, does not disclose the placement of the wear sensor in a rivet hole.

Borsa teaches placing a wear sensor in a rivet hole. It would have been obvious to one of ordinary skill in the art at the time the invention was made to place the wear sensor in a rivet hole in order to ease assembly and reduce the need for additional holes in the backing plate, thus maintaining its integrity.

4. Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kato, as modified, as applied to claim1 above, and further in view of De Pascale (U. S. Patent no. 2,814,684).

Kato, as modified, does not disclose the use of a ball contact element. De Pascale teaches the use of a ball contact element (see figure 4). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a ball contact

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element as taught by De Pascale in the device of Kato in order to reduce the potential for drum damage since the ball will rotate.

5. Claims 13-17, 19, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kato as applied to claim 1 above, and further in view of Maloney (U.S. Patent no. 4,020,454).

Kato, as modified, does not disclose the use of contact pads and switches. Maloney teaches the use of contact pads and switches. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use contact pads and switches as taught by Maloney in the device of Kato as it eliminates the need to connect the drum in the electrical circuit for detection purposes.

Response to Arguments


Applicants state that Goodwin does not teach detecting temperature in a brake system. That is incorrect. Please see column 13 lines 22-29. Applicants state on page 15 that the heat sensors draw heat out of the brake shoe but then claim that the heat is retained longer. The examiner is unclear as to how this is the case.

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6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert A. Siconolfi whose telephone number is 571-272-7124. The examiner can normally be reached on M-F 10 am-3 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James McClellan can be reached on 571 272-6786. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

 12/12/05
Robert A. Siconolfi
Primary Examiner
Art Unit 3683

RS